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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

DANIELS, MATTHEW J

ART UNIT PAPER NUMBER

1732

DATE MAILED: 08/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/628,593

Applicant(s)

TRUSTY ET AL.

Examiner

Matthew J. Daniels

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 18-42 is/are pending in the application.
- 4a) Of the above claim(s) 18-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. In the reply filed 1 June 2006, Claims 1-17 were cancelled and new claims were 21-42 were presented. Claims 18-42 are pending and 18-20 withdrawn.

***Claim Rejections - 35 USC § 112***

2. Rejections set forth previously under this section are withdrawn in view of the cancelled claims.

***Claim Rejections - 35 USC § 102***

3. Rejections set forth previously under this section are withdrawn in view of the cancelled claims.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim rejections set forth previously under this section are withdrawn in view of the cancelled claims.

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5. **Claims 21-42** are rejected under 35 U.S.C. 103(a) as being unpatentable over Argereu (USPN 3828630) in view of Maxey (USPN 3171699) and Cohan (USPN 3333300). As to **Claim 21**, Argereu teaches an article which could be used as a spindle liner for manipulating a workpiece on a turning machine having a spindle with an inner diameter (Fig. 4), wherein the core portion is substantially the same size as the workpiece, and wherein the outer diameter of the article is capable of fitting into the inner diameter of a spindle.

Argereu is silent to the steps of (a) placing a core element within a tubular mold section, (b) securing the core element with a cap that fits into the tubular mold section, defining the void, (c) introducing the liner material into a molten state into the mold through a fill hole, and (d) allowing the liner to set up for an appropriate period of time to permit curing to hardness.

However, these elements are conventional in the art of making bushings or casting polyurethane for the following reasons:

(a, b, c) Cohan teaches placing a core element within a tubular mold section (Fig. 2, item 84) and a cap that fits into the tubular mold section (Fig. 2, item 50). And introducing the liner material into the mold in a molten state through a fill hole (Fig. 6, item 18a).  
(d) Maxey teaches allowing the liner to set up for an appropriate amount of time for curing (5:23-30).

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the methods of Cohan and Maxey into that of Argereu because (a-c) doing so would avoid gate sections on the outer cylindrical surface (Cohan, 1:32-41), which Argereu would find desirable to avoid (See Figs. 5 and 6) in order to provide the outer cylindrical surfaces with a smooth or finished surface (Figs. 5 and 6) and to ensure proper fitting

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of the article in the holder (Fig. 2, item 11) and (d) Argereu clearly suggests polyurethane (2:4-11), and this is clearly suggestive of the conventional molding steps required for this material, as taught by Maxey (column 5).

**As to Claims 22-24**, Argereu teaches polyurethane, which is interpreted to be a plastic, having a substantially circular cross section (2:1-11, Fig. 5). **As to Claim 25**, Argereu teaches hexagonal and cylindrical bores to accommodate the shape of the stock (Fig. 4, Item 14, Fig. 5, and 1:55-60). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to provide a square bore to accommodate square stock. **As to Claim 26**, Argereu teaches a hexagonal bore (Fig. 4). **As to Claim 27**, Argereu teaches hexagonal and cylindrical bores to accommodate the shape of the stock (Fig. 4, Item 14, Fig. 5, and 1:55-60). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to provide a octagonal bore to accommodate square stock. **As to Claim 28**, the Examiner's position is firstly that the method in which the stock is made does not materially affect the method of making the holder for that stock. However, Argereu teaches an extended piece of stock having a constant cross section (Fig. 2, item 10), and it is also the Examiner's position that it would have been obvious to make the stock of Argereu by extrusion because it would be a rapid way of producing constant cross section articles. **As to Claim 29**, Cohan teaches a flange-forming mold portion, which would provide a flange that could be used for mounting (Fig. 6, Item 62a), and would have been incorporated into Argereu's method for the same reasons as set forth in the rejection of Claim 1. **As to Claims 30 and 31**, the flange forming portions of Cohan secure the core element in a fixed orientation (Fig. 2, Items 74 and 50 form a portion of the flange, item 120 or 122 in Fig. 7, and secure the core element, Item 84 in

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Fig. 2). Additionally, Cohan fixes and secures the core element with two threaded pin elements (Fig. 2, Item 82 and 54, one holds the core directly, and the other secures the other cap, which the core rests against).

As to Claim 32, Argereu teaches a method of manufacturing an article that could be used as a spindle liner for manipulating a workpiece on a turning machine having a spindle with an inner diameter (Fig. 4), wherein the core portion is substantially the same size as the workpiece, and wherein the outer diameter of the article is capable of fitting into the inner diameter of a spindle.

Argereu is silent to the steps of (a) selecting a core element from a plurality of core elements, (b) selecting a tubular mold section from a plurality of tubular mold sections, placing the selected core element within the selected tubular mold section, (c) securing the core element within the tubular mold section using a cap that fits at least partially into the tubular mold section, defining an interior void, (d) introducing the liner material in a molten state through a fill hole until filled, and (e) allowing the liner to set up for the appropriate length of time to cure to hardness.

However, these elements are conventional in the art of making bushings or casting polyurethane for the following reasons:

(a, b, c, d) Argereu clearly desires the ability to mold differently shaped work holding portions in the article (Figs. 4 and 5, Item 14). Cohan teaches placing a core element within a tubular mold section (Fig. 2, item 84), and it would have been obvious to provide different core shapes in order to provide the different interior shapes of Argereu. Cohan also teaches a cap that fits into

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the tubular mold section (Fig. 2, item 50), and introducing the liner material into the mold in a molten state through a fill hole (Fig. 6, item 18a).

(e) Maxey teaches allowing the liner to set up for an appropriate amount of time for curing (5:23-30).

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the methods of Cohan and Maxey into that of Argereu because (a-c) doing so would avoid gate sections on the outer cylindrical surface (Cohan, 1:32-41), which Argereu would find desirable to avoid (See Figs. 5 and 6) in order to provide the outer cylindrical surfaces with a smooth or finished surface (Figs. 5 and 6) and to ensure proper fitting of the article in the holder (Fig. 2, item 11) and (d) Argereu clearly suggests polyurethane (2:4-11), and this is clearly suggestive of the conventional molding steps required for this material, as taught by Maxey (column 5).

**As to Claims 33-35**, Argereu teaches polyurethane, which is interpreted to be a plastic, having a substantially circular cross section (2:1-11, Fig. 5). **As to Claim 36**, Argereu teaches hexagonal and cylindrical bores to accommodate the shape of the stock (Fig. 4, Item 14, Fig. 5, and 1:55-60). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to provide a square bore to accommodate square stock. **As to Claim 37**, Argereu teaches a hexagonal bore (Fig. 4). **As to Claim 38**, Argereu teaches hexagonal and cylindrical bores to accommodate the shape of the stock (Fig. 4, Item 14, Fig. 5, and 1:55-60). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to provide a octagonal bore to accommodate square stock. **As to Claim 39**, the Examiner's position is firstly that the method in which the stock is made does not materially

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affect the method of making the holder for that stock. However, Argereu teaches an extended piece of stock having a constant cross section (Fig. 2, item 10), and it is also the Examiner's position that it would have been obvious to make the stock of Argereu by extrusion because it would be a rapid way of producing constant cross section articles. As to Claim 40, Cohan teaches a flange-forming mold portion, which would provide a flange that could be used for mounting (Fig. 6, Item 62a), and would have been incorporated into Argereu's method for the same reasons as set forth in the rejection of Claim 1. As to Claims 41 and 42, the flange forming portions of Cohan secure the core element in a fixed orientation (Fig. 2, Items 74 and 50 form a portion of the flange, item 120 or 122 in Fig. 7, and secure the core element, Item 84 in Fig. 2). Additionally, Cohan fixes and secures the core element with two threaded pin elements (Fig. 2, Item 82 and 54, one holds the core directly, and the other secures the other cap, which the core rests against).

### *Response to Arguments*

6. Applicant's arguments filed 1 June 2006 have been fully considered but they are not persuasive. The arguments appear to be on the grounds that Cohan has no comprehension of the core element dimensions in relation to the workpiece, Svenson relates to spindles and not spindle liners, and therefore does not show or suggest a core element characterized in the instant claims.

These arguments are not persuasive because Cohan's article could be used for the same intended use, and could hold stock in the same way claimed. Additionally, in the new rejection of the claims, Argereu teaches that it is conventional to provide a work holder of substantially the same dimension as the stock piece in order to hold it. Argereu teaches that the hold must



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accommodate the stock. Additionally, the Applicant's remarks appear to be drawn to distinguishing the intended uses of Svenson and the instant application, but this argument is not persuasive against the *method of making*, which requires no comprehension of which article is being held. Argereu's article is capable of performing the intended uses recited by the claim.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J. Daniels whose telephone number is (571) 272-2450. The examiner can normally be reached on Monday - Friday, 8:00 am - 5:30 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MJD 8/3/06



CHRISTINA JOHNSON  
PRIMARY EXAMINER

8/4/06